

Restoring the Wildlife to the Park

The mixed-grass prairie of Wind Cave National Park has a timeless quality. Its wind-blown grasses and plentiful wildlife seem to be in perfect natural harmony. Yet when established in 1903, many pieces of the park's ecosystem were missing. The bison were almost gone from the country in general. The elk of the area were extinct and the pronghorn antelope had moved to open areas of Wyoming and beyond. Had there been a "species of concern" list, all of these animals would have been on it. Since then park managers have worked hard to restore the park's varied ecosystems and the animals that are part of them. In 1913 and 1914 park staff began the process by reintroducing bison, elk, and pronghorn to the park.

That tradition continues and in 2007 one of the rarest mammals in North America returned to Wind Cave National Park. The black-footed ferret was reintroduced to the park's prairie dog towns. We are just now beginning to understand the role they will play in the park's ecosystem.

THE PRAIRIE BEFORE THE PIONEER

In the days before westward expansion, great herds of bison roamed the hillsides and prairie dog towns extended for miles. As the land became plowed and fenced, patches of untouched prairie became fewer and farther between. The prairie became fragmented and remaining patches no longer supported the wildlife that had lived there for generations.

THE BEGINNINGS OF CONSERVATION

With increasing settlement, Americans became concerned about their shrinking wilderness. In 1872 Yellowstone was set aside as the first national park and its unique natural features were protected from development and exploitation. In 1903 Wind Cave National Park was established for similar reasons – citizens wanted to protect the unusual formations found within the cave. However, the prairie received little attention. Gone were the bison, elk, and pronghorn antelope that once roamed the land.

THE RETURN OF THE WILD

Wildlife enthusiasts, aware of the changing face of the American West, became interested in reestablishing bison herds on the plains. Out of several possible sites Wind Cave National Park was chosen, and in 1912 the Wind Cave National Game Preserve was born. In the next few years, twenty bison arrived from the New York Zoological Gardens and Yellowstone National Park. Forty-six elk and twenty-three pronghorn antelope were also brought to the preserve. Today these animals are a common sight on the prairies of Wind Cave National Park.

WHERE IS THE FERRET?

The reintroduction of these animals helped restore the prairie ecosystem. Still, many animals that once dwelled in the park were missing. One was the blackfooted ferret. These remarkable animals are dependent upon prairie dogs for ninety percent of their diet. In fact, a family of ferrets can eat as many as 240 prairie dogs in a year! Prairie dog towns provide essential shelter for ferrets and many other animals. Since prairie dogs were considered pests and being eliminated throughout the West, ferrets became more and more scarce. After a close brush with extinction, the last eighteen ferrets were taken into captivity in 1986 and a captive-breeding program began.



BACK FROM THE BRINK

Since then, ferrets have experienced an incredible recovery. Hundreds have been reintroduced in the wild and numerous states are once again home to this rare mammal. However, wild ferret populations are still struggling. The Conata Basin, in South Dakota's Buffalo Gap National Grassland, is the most successful self-sustaining population of wild ferrets in the world.

PRAIRIE DOGS AND FERRETS

Many animals rely on the habitat that prairie dogs create. But at Wind Cave National Park they have few effective predators and their numbers can swell quickly. Since most of their diet is prairie dogs, returning ferrets to the park will help control the population.

FERRETS AND WIND CAVE NATIONAL PARK

Wind Cave National Park has played an important role in the history of reestablishing wildlife to the Great Plains. On Independence Day, July 4, 2007, park managers continued the legacy by releasing seven ferrets to the park's prairie dog towns; by fall another forty-two ferrets had joined them. Others are expected to be released every year for the next three to five years.

These rare animals join the ranks of other vital parts of the park's ecosystem. Just like bison, elk, pronghorn, and even the native grasses, ferrets play an essential role in the prairie environment. Their presence helps restore balance to a timeless ecosystem and provides the opportunity for visitors to see one of the rarest animals in the world.

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Welcome from the Superintendent



Welcome to Wind Cave National Park. This national park is one of the oldest in the country. Established in 1903, it was the eighth national park created and the first set aside to protect a cave.

While Wind Cave is the major attraction with its unique boxwork and significant underground cave passageways, the surface resources, including both natural and cultural resources, are also worth the stop. The buildings around the visitor center date back to the 1930s Civilian Conservation Corps. The wildlife such as bison, pronghorn antelope, elk, mule deer, prairie dogs, and black-footed ferrets are also exciting to view.

Today, visitors from around the world come to see these two parks in one. Our hope is that you have a safe and enjoyable visit to Wind Cave National Park, take plenty of pictures, participate in our programs, and leave nothing behind but footprints. Travel Safe.

Vidal Davila, Superintendent

Simple Rules for Safety and to Protect Park Resources

Protect the Park

Park resources are for everyone to enjoy. Do not disturb or remove plants, wildlife, antlers, bones, or any other natural or cultural feature. They are protected by federal law. These resources are all part of the park's ecosystem and are important to the park's history and to the survival of other animals and plants. Please leave these objects undisturbed

so the next visitor can enjoy them.



Weapons

Hunting, shooting, or carrying weapons is prohibited in national parks. Weapons may be transported in a vehicle, if unloaded, disassembled, cased, and out of sight.

Carrying a firearm or weapon on your person is prohibited at all times.

र्ज्ज Wildlife

Animals in the park are wild and unpredictable. *Do not approach or attempt to feed them.* Feeding animals cause them to become dependent on handouts and fail to survive the winter. Fed animals may be attracted to highways where they can be struck by passing vehicles.

Be aware that rattlesnakes are sometimes found in prairie dog towns and other areas of the park. Bison also frequent prairie dog towns. They can run 35 miles per hour and may weigh a ton! Stay a safe distance (at least 75-100 yards from a bison) from all wildlife.

Rets

To protect your pet and park wildlife remember: pets are prohibited in the backcountry and on most hiking trails. Pets are permitted on the Elk Mountain Nature Trail at the campground, and on the Prairie Vista Nature Trail near the picnic area. Be sure to clean up after your pet. Pets may not be left unattended and must be on a leash at all times. Be aware that ticks are common in high grass. They may affect your pet.

Do not leave your pets in your vehicle while visiting the cave or for any length of time. The temperatures inside a vehicle can become extreme, putting your pet in grave danger. Kennel space is available in Hot Springs or Custer. Pets

may not be left unattended outside of a vehicle, even if they are leashed.

Traveling in the Park

When driving park roads, *obey all speed limits*. They are strictly enforced to protect you and the wildlife. All vehicles (including bicycles) must remain on roadways that are open to the public. Offroad driving or bicycle riding is prohibited.

Do not leave traces of your visit. Litter is unsightly and spoils the park experience for everyone.



Drive safely.

Planning Your Visit

Nisitor Center

The Wind Cave Visitor Center is a great place to start your park visit. The visitor center is open from 8:00 a.m. to 4:30 p.m. daily, with extended hours during the summer. The visitor center is closed on Thanksgiving, Christmas and New Year's Day. All cave tours begin at the visitor center and are offered daily throughout the year when the visitor center is open.

Exhibits, maps, book sales, back-country permits, information about cave tours and ranger programs, lost-and-found services and Federal Recreational Lands Passes are available here.

Ranger Programs

When visiting the park, plan to attend a ranger-led program. While cave tours are offered all year long, additional programs are presented in the summer. For more information about ranger programs and cave tours see page 7.



▲ Campground

The Elk Mountain Campground is located one mile north of the visitor center. The campground has 75 sites and is open all year, weather permitting. Occupancy is on a first-come, first-served basis; however the campground rarely fills. Each site accommodates up to eight people and two vehicles. Two sites are available for campers with disabilities.

The fee for camping is \$12.00 per night, per site. In the off-season when facilities are limited, the fee is \$6.00 per night. Holders of the Federal Recreational Lands Senior or Access pass pay half price. Group camping is available by reservation. Call the park at 605-745-4600 for group camping reservations.

Restrooms have cold water and flush toilets, but no showers, electrical hook-ups, or dump stations. Firewood is available for campers. During the summer months, park rangers present campfire programs at the amphitheater.

A Backcountry Camping

Wind Cave National Park's back-country offers visitors an excellent opportunity to experience and enjoy the abundant resources of the park. Backcountry camping is permitted in the northwestern part of the park. Several habitats and a variety of plants and animals can be found in this area.

Backcountry campers must have a permit. Permits are free and can be obtained at the visitor center, or at either of the Centennial Trailheads. For your safety and for the protection of park resources, follow all regulations during your stay. Leave no trace of your visit by packing out what you pack in. Pets are not permitted in the backcountry.

Trash and Recycling

Trash receptacles are available at the visitor center, the picnic area and the Elk Mountain Campground. Recycling facilities are also available at these areas. The park recycles glass, aluminum cans, steel cans, and plastic containers with PETE 1 or HDPE 2 markings. Please rinse recyclables before placing them in containers.

Hiking Safely

When hiking park trails (see next page), make sure to carry plenty of water, as daytime temperatures in the summer can exceed 100°F (38°C). Water is not readily available along the trails. Any water found in the backcountry should be treated or boiled before drinking. Flies, mosquitoes, and wood ticks can be found in the wetter areas of the park. Be watchful for prairie rattlesnakes in prairie dog towns and near cliffs and rocky areas. Rattlesnakes will not usually strike unless provoked.



Sicycling

Bicycling is limited to established park roads that are open to the public. *Bicycling off road, on trails, or in the backcountry is prohibited.* Bicyclists can ride comfortably on U.S. 385 as it has wide shoulders. S.D. 87 in the park is winding and narrow with little room for bicyclists. Bicyclists should take precautions when on this road.

Bicyclists may also travel on the park's back roads, NPS 5 and 6. These roads provide visitors with a great opportunity to see the prairie areas of the park. When bicycling, be aware that animals roam freely through the park. Remember to keep a safe distance from bison and all wild animals.

Picnicking

The park's picnic area is located ¼ mile north of the visitor center and is open year-round. The picnic area contains tables and fire grates. Drinking water is available in the summer months.

Restrooms

Restrooms are available year-round at the visitor center, picnic area, and the Elk Mountain Campground.

Weather

Summer in the southern Black Hills brings warm daytime temperatures with cool evenings. Thunderstorms are common in June and July and occasionally in August. These Thunderstorms can be dangerous with large hail and severe lightning.

Slow-moving storms can dump large amounts of rain over a small area. The steep canyons, rock cliffs, and small creeks of the Black Hills are prone to flash flooding. Be cautious when camping near a creek bed even if it is dry. Move uphill if flooding starts.

Area Services

The park has limited food and beverage vending services in the visitor center. There are no lodging, gasoline, grocery, or restaurant services in the park. These are available in the nearby towns of Hot Springs (15 minutes south) and Custer (25 minutes north). For information regarding services in Hot Springs, call 800-325-6991. For Custer, call 800-992-9818.

Campgrounds, motels, and some grocery services are located in Custer State Park bordering Wind Cave National Park to the north. For information about Custer State Park, call 605-255-4515. For information about state park lodging, call 800-658-3530.

Hiking



HIKING IN THE PARK

Wind Cave National Park includes 28,295 acres of prairie grasslands and ponderosa pine forest. The park is a fascinating combination of ecosystems where eastern habitats meet western ones. They support a diverse assortment of life. Hiking any of the 30 miles of trails can help visitors better understand the park. You may even want to leave the trails and travel cross-country along the ridges, through the canyons, or across the rolling prairie. A topographic map is recommended and can be purchased at the visitor center.

CENTENNIAL TRAIL

An excellent example of the diversity of the park can be seen by hiking Wind Cave's six-mile section of the Centennial Trail. This trail crosses the prairie, climbs the forested ridges, and explores the wetter, riparian habitat of Beaver Creek. The 111-mile Centennial Trail meanders from Wind Cave National Park north through the Black Hills.

NATURE TRAILS

There are three nature trails in the park. The Rankin Ridge Nature Trail leads to the highest point in the park where the views are spectacular. The Elk Mountain Nature Trail explores an ecotone, or meeting zone, where the grassland and forest converge. The Prairie Vista Nature Trail starts at the visitor center and explores the prairie grasslands. Informational signs are available on the trails, or booklets are available at the trailheads. Each trail is about one mile in length.

Hiking Trails			
	One-way Length	Difficulty	Description
Cold Brook Canyon Trail	1.4 miles (2.3 km)	Moderately Strenuous	The trail begins south of the visitor center on the west side of U.S. Highway 385. This trail traverses a former prairie dog town, the edge of a prescribed fire, and through Cold Brook Canyon to the park boundary fence.
Wind Cave Canyon Trail	1.8 miles (2.9 km)	Easy	This former road follows Wind Cave Canyon to the park boundary fence. Wind Cave Canyon is one of the best places for bird watching. Limestone cliffs provide good nesting areas for cliff swallows and great horned owls. Standing dead trees serve as homes for red-headed and Lewis's woodpeckers.
East Bison Flats Trail	3.7 miles (6 km)	Moderately Strenuous	Hike one-half mile down the Wind Cave Canyon Trail to pick up the East Bison Flats Trail. This trail leads hikers across the rolling hills of the prairie. From this trail you may see panoramic views of Wind Cave National Park, Buffalo Gap, and the Black Hills.
Lookout Point Trail	2.2 miles (3.5 km)	Moderately Strenuous	This trail follows the rolling hills of the prairie, traverses Lookout Point, and ends at Beaver Creek. Take a side trip up Lookout Point to see the results of the 1999 wildfire. This trail can also be combined with part of the Highland Creek Trail, and the Centennial Trail, to create a 4.5-mile loop that begins and ends at the Centennial Trailhead.
Sanctuary Trail	3.6 miles (5.8 km)	Moderately Strenuous	The trail begins about one mile north of the Rankin Ridge fire tower road. This trail follows the rolling hills of the prairie, crosses a large prairie dog town, and ends at the Highland Creek Trail. View the Rankin Ridge fire tower at the intersection of the Centennial Trail. This trail provided a fire break for the 2000 wildfire of 1,135 acres.
Centennial Trail	6 miles (9.7 km)	Moderately Strenuous	The southern access to the trail is on the east side of S.D. Highway 87. The northern access is on NPS 5, 1.4 miles east of its junction with S.D. Highway 87. This trail is part of a 111-mile trail through the Black Hills. The trail leads hikers across prairies, through forested areas, and along Beaver Creek. The trail is marked with posts and trees bearing the Centennial Trail logo.
Highland Creek Trail	8.6 miles (13.8 km)	Strenuous	The southern trailhead is along the Wind Cave Canyon Trail one mile east of U.S. Highway 385. The northern trailhead is on NPS 5, 2.8 miles east of S.D. Highway 87. This trail is the longest and the most diverse in the park. The trail traverses mixed-grass prairies, ponderosa pine forests and riparian habitats of Highland Creek, Beaver Creek and Wind Cave Canyon.
Boland Ridge Trail	2.6 miles (4.2 km)	Strenuous	The trail begins one mile north of the junction of NPS 5 and NPS 6. This trail climbs to panoramic views of Wind Cave National Park, the Black Hills, Red Valley, and Battle Mountain. Elk are often seen from this trail.

Returning the Wildlife to Wind Cave

Imagine heading west on a wagon trail crossing the Great Plains. Feel the wind in your face, smell the grasses, hear the haunting bugle of elk, and behold the bison.

These views, smells, and noises welcome visitors today as they drive through Wind Cave National Park. This has not always been the case. In 1903, when Wind Cave became the eighth national park, there were no bison, elk, or pronghorn roaming the plains of South Dakota. They had been hunted almost to extinction. What happened to change that?

The Return of the Bison

The return of the bison is an amazing environmental story. Scientists believe that at one time there may have been only 30 bison left in Yellowstone and fewer than 550 in captive herds. Within a few decades the bison that once filled the prairie were almost gone.

Fortunately, they never completely vanished. Ranchers, hunters, and average citizens worked to preserve them. But it was not easy.

The 14 bison that started the Wind Cave herd came as a gift from the American Bison Society in 1913. Fred Dille, of the U.S. Biological Survey, was in charge of moving the bison from the Bronx Zoo to the park. They loaded the bison into special crates and onto an express train. The 2,000-mile journey took $2\frac{1}{2}$ days. When they reached Hot

Springs every available truck and cart was readied to get the animals to the preserve. This part of the trip took 10 hours!

A large group of spectators had gathered in the park to watch the release. There was only one problem. According to Dille, "To suggest to a buffalo that he must back out of the crate by poking him in the head and forequarters, will work with an elk but not with a bison. Your actions are but a challenge to him and he does not propose to give ground or show the least cowardness." The final operation was more like removing the crates from the animals than the animals from the crate.

At last, the bison were released to begin their life on the prairie. These, and six additional bison



from Yellowstone in 1916, were all believed to have descended from the last remaining wild bison. This makes the park's herd significant to bison conservation.

While ranchers did help to save the bison from extinction, many also experimented with cross breeding bison with cattle in hopes of producing a "heartier breed". Hybrids were resistant to disease, required less feed, and produced more calves. This experimentation created many bison with small amounts of cattle/bison genes.

Today, wildlife managers are looking to preserve a pool of bison which is disease free, has high genetic diversity, and has no evidence of cross breeding. Wind

Cave's herd can help fulfill that need. Because of their origin they are without evidence of cross breeding with cattle. They are also genetically diverse and disease free.

The park plays an important role in restoring these magnificent animals to the wild. To protect the park's habitats from overgrazing, resource managers cull the herd in the fall. These bison are shipped to other places where they can help strengthen the genetic diversity of those herds. Because of this we will be able to hear the bison roaring during the rut and marvel at their immense size well into the future. This is a gift from the past; a gift from people who cared that we too could share in the wonder of the wild.

















The Story of the Elk

Like the bison, there were no elk here when the park was established. At one time elk was the most widely distributed member of the deer family in North America. As pioneers moved west, hunting and habitat destruction took its toll. Elk began to disappear until only remnant herds remained.

In 1914, 21 elk from Jackson Hole, Wyoming, were introduced into the park. Their numbers increased rapidly and continue to do so. Currently there are so many elk in the park that biologists are concerned that they are upsetting the natural balances of the ecosystem.

To have a healthy balance, there must be a proper ratio of animals to their habitat. Without native predators or natural controls on their population, animals can literally eat themselves out of house and home. In order to protect the habitat, managers must control their num-

One problem with elk is the impact they have on the park's hardwoods. Botanists noted that there were very few young or middle-aged aspen, willow, oak, and birch trees within the park. This struggle to survive might be because elk are heavily browsing, or eating, them. In order to protect the hardwood ecosystems, researchers fenced some areas. Keeping the elk away from developing hardwoods help these plants mature and provides a better understanding of the effect of browsing.



Elk at Wind Cave National Park



Bull Elk in the Fall

Researchers have also put radio collars on elk in the park. This helps us understand the movement and dynamics of the herd and how they impact their habitat.

To address the issues surrounding the elk population and provide protection for the park's varied habitats, resource managers have written an Environmental Impact Statement (EIS) for public review in 2008. This document will help managers develop an Elk Management Plan. Information about this EIS is available at www.parkplanning.nps.gov/wica.

Once developed, the Elk Management Plan will define a healthy number of elk for the park and provide a means to manage the population. Previously the park rounded-up excess elk and shipped them to other parks. This option is no longer available since some elk and deer in the park have tested positive for Chronic Wasting Disease.

Working to protect and preserve elk in their natural habitat is one of the basic resource management goals of Wind Cave National Park. The plan will provide a means for us to continue to experience the thrill of seeing these elusive animals in the wild, while making certain that the elk and ecosystem remain healthy.

Protecting the Pronghorn

The pronghorn antelope was also reintroduced to the park in 1914. Thirteen of these swift-footed creatures were brought from Alberta, Canada, with the help of the Boone and Crocket Club. While the elk and bison thrived in their new home, the pronghorn did not.

A.P. Chambers, the first warden of the game preserve, was new to animal management and, like all new ideas, he learned by trial and error. Initially Chambers had problems with what to feed the pronghorn. Then he had trouble protecting them from predators.

In 1918, two coyotes became such a nuisance that a trapper was called

in. It took him five weeks to catch these wily coyotes. In the meantime they devoured 13 pronghorn! During the winter of 1922, bobcats or coyotes killed 20 more. By 1924 the herd was down to six does.

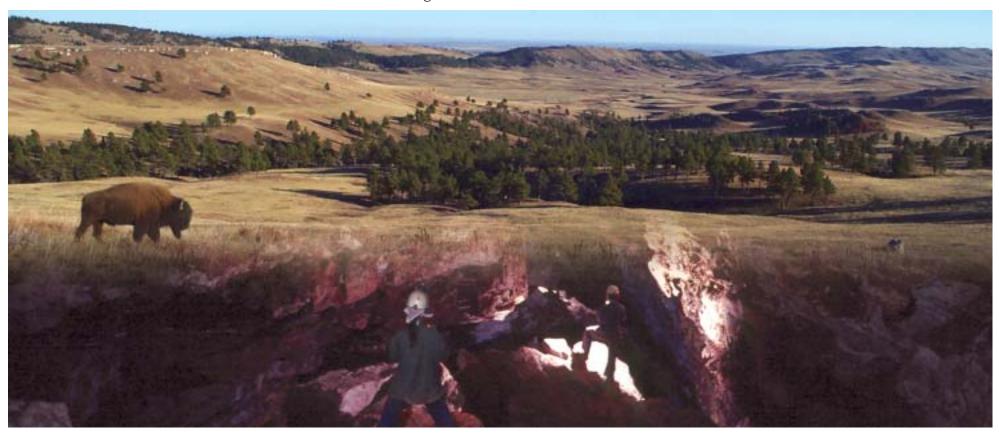
Because so much effort and expense had been put into this herd, only for them to become dinner for predators, a war was declared. Between 1912 and 1921 trappers killed 598 predators! Eventually Chambers realized that the problem was not the fault of predators. Pronghorn are astonishingly fast animals. They protect themselves by outrunning their enemies; keeping them in small enclosures was like serving them

up as a meal. In 1926 Chambers declared, "The propagation of the antelope is difficult ...the only way this can be accomplished is by setting aside large tracts of land ... They will not thrive in confinement."

The interior fences in the park were removed in 1935 creating a larger range for all the animals. Chambers described the pronghorn's first taste of open range: "It was interesting to watch the antelope the first day.... They covered the entire east range, running hither and yon." More expansion happened in the 1940s. By 1960 the park was 28,291 acres with a herd of more than 300 pronghorn.

In the early part of this century, the pronghorn again became a species of concern. Their population dropped to fewer than 30. South Dakota State University researchers began a study of the pronghorn and their predators.

Soon after the study started, coyotes of the area experienced an outbreak of mange. Their numbers dropped dramatically. Since then the pronghorn population has increased. This dramatic recovery provides an excellent example of how all things in nature are connected and it is very important for park managers to understand the dynamics of the whole system not just one part of it.



Connecting the Underground

Understanding and managing a park when half of it is deep underground is a difficult challenge. A hundred years ago when the location of the old hotel and later the visitor center were planned, no one dreamed they could damage the cave. After all, the cave sits in silent splendor beneath the ground and nothing could hurt it – right? Actually that is very far from the truth.

In the late 1970s managers began researching the connections the cave has with the sunlit surface world. The main connection between these worlds is water and researchers quickly learned how intricately tied they were. The

amount and condition of the water determines what crystals are created and what lives in the cave. To understand this connection, researchers used a special dye to trace the path of the water. They discovered that in some places it took less than eight hours for water to travel from the parking lot into the cave.

After several studies, all of which indicated that oil, gas, and other materials from the parking lot traveled into the cave, resource specialists initiated steps to protect the water by upgrading the parking lot. Today the parking lot is concrete and the water from it flows through a filtering system before it is

released away from the cave. The cave is also a part of a larger system that supplies the area's drinking water. Recently, developers have shown an interest in drawing substantial amounts of water from the Madison limestone formation where the cave is located. This removal could lower the water level in the cave by as much as 40 feet. Microbes and other organisms that could be living in the cave or the water would be disturbed and may be destroyed by the changing level.

Much of the secret world beneath our feet is still unknown. We have yet to find the entire cave and even though few of us think of damp, dark cave environments as being cornucopias of life, studies have proven they can be.

Explorers in Lechuguilla Cave at Carlsbad Caverns National Park have found close to 1,200 different microscopic life forms within the dark, "uninhabitable" world. The inventory and study of microbial life within Wind Cave is in its infancy. Scientists have found some evidence of DNA from samples from the cave indicating extreme life forms may live here too.

Part of the mystery of a cave is the unknown lurking in the dark. If we are not careful, secrets might be lost and life forms we have not even dreamed of might be destroyed.

Evolving Ideas

Over the years, each park manager did the best they could with the information available. When A.P. Chambers started raising pronghorn, nothing like that had ever been done. The experience he gained helped others. Mistakes have been made and our ideas will continue to change.

Fire, once thought to be the park's

worst enemy, is now a tool used to improve the grasslands and forest. At one time predators were killed; today we have introduced a predator, the black-footed ferret, to the prairie dog towns. As times change and knowledge is gained, ideas evolve. There is always room for growth. Aldo Leopold had a great understanding of ecosystems. His quote "the sign of intelligent"



However, we must not only save the pieces, but understand how they fit together.

Wind Cave National Park has been managed for more than 100 years.

A thriving plant and animal community and a mysterious cave are preserved and protected for all of us. Parks are the special places where ideas evolve, important concepts are developed, and everyone can enjoy the results.

Program Information

Become a Junior Ranger!

The Junior Ranger Program is an exciting opportunity for children and their families to learn about the park. Becoming a Junior Ranger helps youngsters understand the park's ecosystems, the cave, and the animals. It also helps them learn how they can help protect all parts of our environment. Junior Ranger booklets are available at the bookstore. There are activities for children up to age 12.

On Wednesdays and Saturdays of the summer season, a Junior Ranger Hike will be presented at 9:00 a.m. Topics for this hike will vary. The program will be geared for parents and their children.

As in the past, thanks to the generous support of **Kodak**, park rangers will be taking photographs of the accomplishments of our Junior Rangers. These youngsters will then be able to share their pictures and adventures with families and friends.

Kids can also become Junior Rangers at home by logging on to www.nps.gov/webrangers.

New Lights for the Cave

Wind Cave has had several light systems in the cave with the first installed in 1932. Many lessons were learned from those lights, including how difficult it is to maintain an electrical system within a cave. The last time the cave lights were upgraded was in 1988. That system is reaching the end of its serviceable life and is no longer consistent with professional standards.

This new system will primarily use LEDs and compact fluorescent bulbs, cutting the park's use of power considerably. The lights will also help protect the fragile features of the cave since both types of bulbs produce less heat and light energy. Water plays an important part in the development of cave crystals and heat from lights can cause that water to evaporate faster, changing the way crystals grow. We also hope there will be less algae growing on cave walls with the new types of lights.

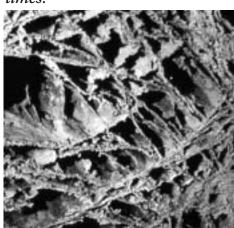
The project is expected to take two years. By summer, engineers expect to have completed work along the Fairgrounds Tour Route. The Natural Entrance and Garden of Eden Tours will be installed in 2009.

Cave Tours

Cave Tour Information

All cave tours are ranger-guided and leave from the visitor center. The cave temperature is 53°F (11°C) year round. A jacket or sweater is recommended. Good walking shoes are required. Sandals are not recommended.

Tickets are sold at the visitor center. *Tickets must be purchased at least five minutes before tour times*.



Cave Boxwork

Natural Entrance Tour 1¼ hours, ½ mile

This tour includes a visit to the only known natural entrance of Wind Cave giving visitors the opportunity to see how the cave got its name. Participants enter the cave through a man-made entrance

and journey through the middle level of the cave. Wind Cave's famous boxwork is abundant throughout this trip. Most of the 300 stairs along this route are down. This tour is moderately strenuous and exits the cave by elevator.

Garden of Eden Tour 1 hour, ¼ mile

This tour is the least strenuous with only 150 stairs. It is a wonderful sample of Wind Cave. Small amounts of all of the beautiful cave formations – boxwork, popcorn, and flowstone – are seen along the trail. The tour is for people with limited time or abilities. This tour enters and exits the cave by elevator.

Fairgrounds Tour 1½ hours, ½ mile

This tour explores both the upper and middle levels of Wind Cave. Boxwork is abundant along the trail in the middle level of the cave. In the upper level, the trail winds through large rooms and into areas where popcorn and frostwork can be seen. This is the most strenuous walking tour. The tour enters and exits the cave by elevator. There are 450 stairs along the route with one flight of 90 steps up.

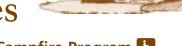
Surface Activities

Prairie Hike

Take a hike with a ranger! Explore the park's varied habitats with this two-hour summer activity. The daily hike begins at the visitor center before the group drives to a nearby trailhead. Bring drinking water and wear hiking boots or sturdy shoes. Check at the visitor center for details.

Evening Hike

Explore the happenings on a prairie dog town at night and possibly see an endangered species - the black-footed ferret! These evening hikes begin at the Elk Mountain Campground Amphitheater before driving to a nearby site. Bring a flashlight and wear hiking boots. Check at the visitor center for details.



Campfire Program & Become better acquainted with

park resources by attending an evening campfire program. These talks are presented during the summer at the Elk Mountain Campground Amphitheater. Topics may include wildlife, plants, geology, cave exploration, park management, or history. The programs last about 45 minutes.

Discovery Activity &

Daily, during the summer, ranger talks or demonstrations take place at the visitor center. These programs explain some facet of the park. Topics may include local wildlife, plants, geology, area history, or cave surveying. Check at the visitor center for meeting place and topic.



Wild Cave Tour 4 hours, ½ mile

Explore the cave away from the developed trails. On this tour visitors will be introduced to basic, safe caving.

Wear old clothes and gloves, as much of the trip will include crawling. Long pants, long sleeved shirts, and sturdy, lace-up boots or shoes with non-slip soles are required. No sandal of any kind is permitted on this tour. The park provides hard hats, lights, and kneepads.

Please do not bring jewelry, watches, or other valuables on the tour. Clothing worn on the Jewel Cave Wild Cave Tour is not permitted in Wind Cave since this clothing could be covered with manganese, which could stain the cave.

This tour is limited to 10 people and the minimum age is 16. We require a signed parental consent form for participants 16 and 17 years old.

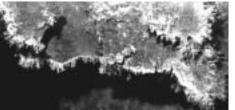
Reservations are required. Reservations are accepted beginning one month before the tour. Please call the park at 605-745-4600 for more information.

Candlelight Tour 2 hours, 1 mile

Experience the cave by candlelight. This tour takes place in a less developed, unlighted part of the cave. Each participant will carry a candle bucket. Shoes with non-slip soles are required. No sandals are permitted. This tour is limited to 10 people and the minimum age is 8. This strenuous tour covers 1 mile of rugged trail. Reservations are strongly recommended. Reservations are accepted beginning one month before the tour. Please call the park at 605-745-4600 for more information.

Tours For Visitors With Special Needs 👃

The visitor center and the cave are accessible to people with limited mobility. Please call to make special arrangements or ask at the information desk for a special tour. Limited areas of the cave are accessible to wheelchairs. The fee for the tour is \$5.00 for adults and half price for Senior or Access pass holders.



Cave Boxwork

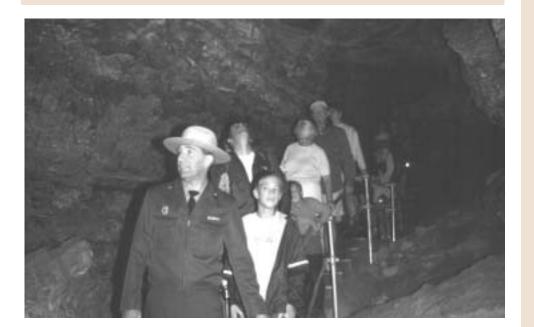
Ranger Programs

Tour Fees

Tickets must be	purchased	at least	five minutes	before tour time
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	Garden of Eden	Natural Entrance	Fairgrounds	Candlelight	Wild Cave
Adult 17 & Older	\$7.00	\$9.00	\$9.00	\$9.00	\$23.00
Youth age 6 - 16	\$3.50	\$4.50	\$4.50	*\$4.50	**Not Permitted
Infants and Toddlers age 0 - 5	Free	Free	Free	Not Permitted	Not Permitted
Senior/ Access Pass cardholder or	\$3.50 nly	\$4.50	\$4.50	\$4.50	\$11.50

- * Minimum age for Candlelight Tour is 8
- ** Minimum age for Wild Cave Tour is 16. The fee is \$23.00



Cave Tour Safety and Information



All tours are ranger-guided and leave from the visitor center. Tickets are sold on a first-come, first-served basis, except for the Candlelight and Wild Cave tours (see Reservations below). During peak summer visitation, long waits for tours may be encountered. To avoid waits, the best time to visit the cave is during the early hours of the day. During the summer, weekends are good times to visit; Tuesdays and Wednesdays are the busiest days. Reservations for school and organized groups are available (see Reservations.)

Wind Cave is 53°F (11°C) throughout the year so a sweater or jacket are recommended. Good walking shoes are required on all tours. Cave trails are dimly lighted and trail surfaces may be uneven, wet, and slippery. Do not wear sandals. Ceilings along the tour route are low, requiring some bending. There are no restrooms in the cave. No eating, drinking, chewing tobacco or gum is allowed in the cave.

Photography is permitted, but no tripods. Pets are not allowed in the cave. Do not leave your pets in your vehicle while visiting the cave. See Page 2 for more information about pets in the park.

Cave tours are moderately strenuous. Persons with claustrophobia, heart or respiratory conditions, or other physical limitations should reconsider. A tour is available, by request, for visitors with special needs. Call 605-745-4600 or ask at the information desk.

Reservations

Tickets for most cave tours are sold on a first-come, first-served basis; however, reservations are accepted for schools or large groups. Reservations are strongly recommended for the Candlelight Tour and required for the Wild Cave Tour. Reservations are accepted beginning one month before the tour. Please call 605-745-4600 for reservations.

For the protection of the cave, do not touch or remove rocks or formations and do not step off the trail.

Program Schedule

April 5 - April 26, 2008

Visitor Center: 8:00 a.m. – 5:00 p.m. Garden of Eden Tour: 9:30, 11:30, 1:30, and 3:30



April 27 – May 23, 2008

Visitor Center: 8:00 a.m. - 6:00 p.m.

Natural Entrance Tour: 9:00, 10:30, 11:30, 1:30, 2:30, and 4:30

May 24 - May 26, 2008, Memorial Day Weekend

Visitor Center: 8:00 a.m. - 6:00p.m.

Garden of Eden Tour: 11:00, 1:00, 3:00, and 5:00

Natural Entrance Tour: 8:40, 9:20, 10:30, 11:30, 12:30, 1:30, 2:30,

3:30, and 4:30

Fairgrounds Tour*: 10:00, 12:00, 2:00, and 4:00 Campfire Program: 8:30 p.m., Saturday and Sunday

May 27 - June 6, 2008

Visitor Center: 8:00 a.m. - 6:00 p.m.

Garden of Eden Tour: 12:30, 1:30, 2:30, and 3:30

Natural Entrance Tour: 9:00, 10:00, 11:00, 12:00, 1:00, 2:00, 3:00,

4:00, and 5:00

June 7 - August 16, 2008

Visitor Center: 8:00 a.m. - 7:00 p.m.

Garden of Eden Tour: 10:40, 12:40, 2:40, and 4:40

Natural Entrance Tour: 8:40, 9:00, 10:00, 11:00, 12:00, 1:00, 2:00,

3:00, 4:00, 5:00, 5:30, and 6:00

Fairgrounds Tour*: 9:30, 10:20, 11:40, 12:20, 1:40, 2:20, 3:40,

and 4:20

Candlelight Tour: 10:30 a.m. and 1:30 p.m.

Wild Cave Tour: 1:00 p.m. Ranger-led Hike: 9:00 a.m. Campfire Program: 9:00 p.m.

August 17 - September 1, 2008

Visitor Center: 8:00 a.m. – 6:00 p.m. Garden of Eden Tour: 10:30, 1:40 and 3:40

Natural Entrance Tour: 9:00, 10:00, 11:00, 12:00, 1:00, 2:00, 3:00,

4:00, and 5:00

Fairgrounds Tour: 9:30, 11:20, 12:40, 1:20, and 3:40

Candlelight Tour: 1:30 p.m.

Wild Cave Tour: 1:00 p.m. Weekends Only August 17, 23, 24, 30,

and 31

Campfire Program: 8:00 p.m.

September 2 – September 27, 2008

Visitor Center: 8:00 a.m. – 6:00 p.m.

Natural Entrance Tour: 9:00, 10:30, 11:30, 12:30, 1:30, 2:30, 3:30,

and 4:30

Evening Program: 7:00 p.m. Tuesday, Thursday, and Saturday

September 28 – October 18, 2008

Visitor Center: 8:00 a.m. – 5:00 p.m. Cave Tour: 9:30, 11:30, 1:30, and 3:30

October 19, 2008 - Early April, 2009

Visitor Center: 8:00 a.m. – 4:30 p.m. daily except Thanksgiving, Christmas, and New Year's Day
Cave Tour: 10:00, 1:00, and 3:00

Tour schedules are subject to change. Please call 605-745-4600 to confirm tour times. Programs are subject to cancellation during severe weather.

* The starting date for Fairgrounds Tours may be delayed due to installation of new cave lighting system.

IN CASE OF AN EMERGENCY Dial 911

or contact any park ranger or call the visitor center at 605-745-4600.

Jewel Cave National Monument Celebrates 100 Years!

On February 7, 1908, President Theodore Roosevelt signed a proclamation that established Jewel Cave National Monument. This protected the small but extraordinarily beautiful cave, known for the jewel-like calcite crystals which line the cave walls. One hundred years later, exploration has revealed Jewel Cave to be anything but small! It is the second longest cave in the world with a current length of over 141 miles. And exploration is far from over. Explorers continue to reveal miles of passages with countless varieties of wonderful formations.

This year Jewel Cave National Monument is celebrating its centennial through a series of events, activities, and exhibits that will highlight the theme "Generations of Discovery". The staff has been working on improvements to park programs and facilities. New programs and activities will be conducted daily during the summer. These include guided hikes, Junior Ranger activities, and programs in the Historic Area at the cabin built by the Civilian Conservation Corps. The visitor center will feature several new and updated exhibits.

Jewel Cave National Monument has come a long way since early explorers

discovered the first wondrous cave formations. Work was recently completed along the Scenic Tour Route in the cave to improve visitor experience and upgrade equipment that was installed during the original construction of the route in the 1960s. The cave lighting system also has been upgraded to provide for more efficient maintenance of the cave lights. The aging wooden canopy was removed from the Target Room Entrance to prevent negative impacts to the cave environment and to allow for a more enjoyable visitor experience.



The passing years and exploration of new cave passages have provided many significant milestones to celebrate. We hope you will join us in 2008 as we remember the past, examine our role in the present, and prepare for the future generations of discovery.

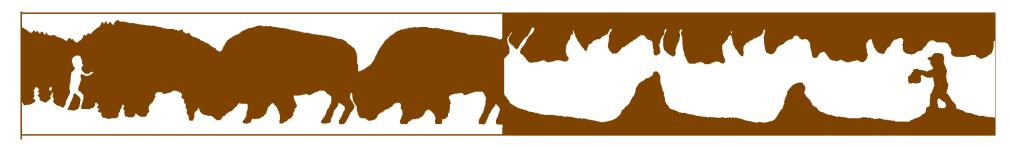
Many different types of publications are available in the bookstores includ-

ing books specific to Wind Cave National Park and others about local nat-

ural and human history. These publications, maps, and items are available

at the bookstore, by mail order, or from the association web site,

For more information, or to learn more about Jewel Cave National Monument, please call 605-673-2288 or visit www.nps.gov/jeca.

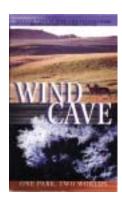


The Black Hills Parks & Forests Association

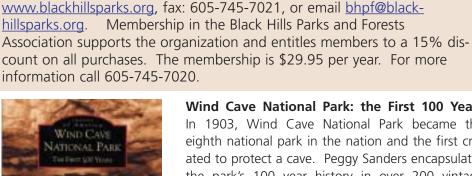
The Black Hills Parks & Forests Association sells books, maps, and other park related publications in visitor centers at Wind Cave National Park, Jewel Cave National Monument, Custer State Park, Buffalo Gap National Grassland, and Black Hills National Forest. The association publishes books and materials about these areas. Cooperating associations are non-profit, tax exempt organizations authorized by Congress to promote educational and scientific activities within national parks. All profits from association sales support the educational, interpretive, and research activities of these agencies.

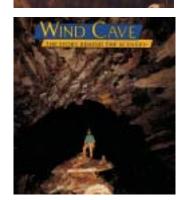


Wind Cave: An Ancient World Beneath the Hills - In this wonderful, easy-to-read book, Art Palmer explains the geology of Wind Cave, how it is related to the Black Hills, and how the boxwork formed. The charts and graphs help make the topic easily understood by people unfamiliar with geology. The pictures of the unusual Wind Cave boxwork alone make this book well worth the investment. \$8.95



Wind Cave: One Park, Two Worlds - takes viewers on a journey into two vastly different landscapes of uncompromising beauty - the prairie and the cave. This 20 minute movie tells the dramatic stories of Wind Cave National Park's natural and human history, including the story of Alvin MacDonald - the first explorer of this subterranean world and the story of the bison - the symbol of the Great Plains. Through breathtaking photography this video captures the spirit, mystery, and beauty of one of America's oldest National Parks. \$19.95





Wind Cave National Park: the First 100 Years In 1903, Wind Cave National Park became the eighth national park in the nation and the first created to protect a cave. Peggy Sanders encapsulates the park's 100 year history in over 200 vintage images. Travel through time with the early cave and animal management teams, through the Great Depression, and into the present with a collection of classic pictures and stories. \$19.95

Wind Cave, The Story Behind the Scenery - If you are interested in learning more about the ecosystems, wildlife, and history of Wind Cave National Park, this book by Ron Terry is an excellent choice. It contains outstanding photographs and information about the cave and its unusual boxwork formation. This book goes beyond the cave, including photos and insights about the park's incredible prairie. This book is part of a series that explores the natural, geological, and cultural history of the national parks. \$9.95

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